DCRS-5750F Dual Stack Optical Ethernet Switch Datasheet

DCRS-5750-28F(DCRS-5750-28F-DC)

DCRS-5750-52F(DCRS-5750-52F-DC)

Product Overview

DCRS-5750F Series switches are 10G full optical Ethernet Layer 3 switches for carrier and MAN networks. They support dual stack(IPv4/IPv6), comprehensive QoS, enhanced Vlan functions (Multicast Vlan, Voice Vlan, QinQ, etc), classified bandwidth control, multiple link aggregation, intelligent security control. It is ideal for the Metro Ethernet market, using in the access layer of three-tier networks provides long distance fiber connections to end user to provide Triple play service. It also an excellent choice as a distribution/aggregation switch for large enterprises, to provide long distance fiber connections to aggregate access layer switches that are dispersed in different locations.

The 5750F series carrier level switch has 2 types: DCRS-5750-28F and DCRS-5750-52F. The switches support IPv6 with hardware and pass the IPv6 form certification Phase II. With the abundant ipv6 features, the product can still work for next generation network.

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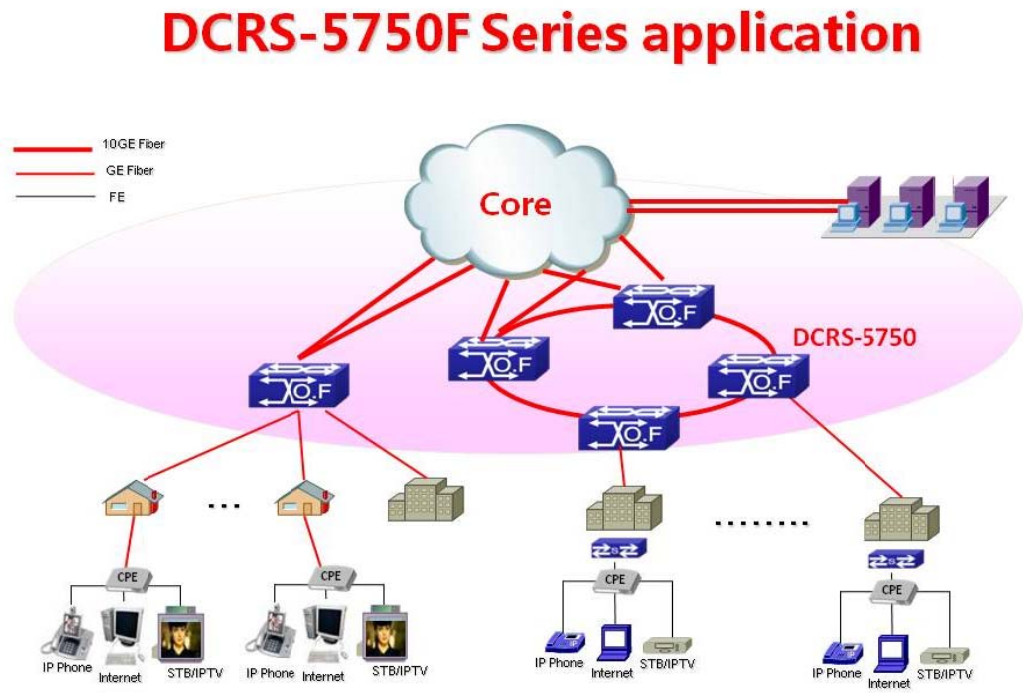
■ Application



■ Key Features and Benefits

➢ Performance and Scalability

With high switching capacity, the DCRS-5750F series switch supports wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The SFP-based Gigabit ports support various optional 1000M/100M Ethernet mini GBIC transceivers, for different distance fiber connections.

The 10 Gigabit Ethernet connectivity of DCRS-5750F is accomplished via a hot-pluggable 10 Gigabit XFP/SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 80km over single-mode fiber (The distance depend the optical module chosen).

The DCRS-5750F series switch supports redundant AC and DC power supplies for different environment applications.

➢ L3 Features

The DCRS-5750F series switch delivers high-performance, hardware based IP routing.

RIPv1/v2, static and default route provide dynamic routing by exchanging routing information with other Layer 3 switches and routers.

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➢ **Powerful Multicast**

The DCRS-5750F supports abundant multicast features. The product support rich multicast features such as IGMPv1/v2/v3 snooping etc. As the rich application experience, the product supports Multicast VLAN Registration (MVR) with VLAN and Trunk association, and multicast receiver/sender control and illegal multicast source detect functions.

➢ **Easy high reliability network**

MRPP is Multi-layer Ring Protection Protocol. It introduces Layer concept for loop at the basis of traditional loop protect protocol. Each loop layer has multiple same-level Ethernet loop networks. With multi-loop layers, it can achieve quick convergence from core to aggregation.

VRRP is a high reliability protocol for network and the DCRS-5750F can support also. With the protocol support the product can help customer network increase network reliability and upgrade network more smoothly.

➢ **Comprehensive QoS**

8 queues per port enable differentiated management of up to 8 traffic types.

Traffic is prioritized according to IEEE802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

➢ **Enhanced Security**

IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some service is based on time, the product can support time based ACL to match the requirement.

Secure Shell (SSH) encrypts network management information via Telnet providing secure network management.

RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

➢ **Expedient Management**

DCRS 5750 series support DDM (Digital Diagnostic Monitor)， which makes the detailed digital diagnostic function standard in SFF-8472 MSA. DDM is more requested by carrier users.

DCRS 5750 series support OAM to improve the effectively management mechanism, which greatly extends Ethernet application to Metropolitan Area Network and Wide Area Network by implementing OAM on Ethernet

➢ **Abundant IPv6 Support**

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The DCRS-5750F series switch supports IPv6 routing in hardware for maximum performance. As more network devices growing and the need for larger addressing, as well as higher security becoming critical, the DCRS-5750F series switch will be a right product to meet the requirement. The DCRS-5750F passed IPv6 form Phase II certificate is the best proof of the application.

Specification

Attributes	DCRS-5750-28F DCRS-5750-28F-DC	DCRS-5750-52F DCRS-5750-52F-DC
Ports	12 GE SFP ports, 12 COMBO (SFP/GT) 2 slots and max 4 10GE	44 GE SFP ports, 4 COMBO (SFP/GT) 2 slots and max 4 10GE
Performance		
Switching Capability	128Gbps	176Gbps
Throughput	96Mpps	131Mpps
MAC Address	Max 16K	Max 16K
VLAN Table	Max 4K	Max 4K
ACL TABLE	Max 1k	Max 1k
Routing Table	Max 512	Max 512
L3 Interface	Max 256	Max 256
Port Queues	8	8
Physical		
Dimension（WHD）	415mm×44mm×325mm	415mm×44mm×325mm
Relative Humidity	5% ~ 90%, non-condensing	5% ~ 90%, non-condensing
Operating Temperature	0℃ ~ 50℃	0℃ ~ 50℃
Storage Temperature	-40℃ ~ 70℃	-40℃ ~ 70℃
Power Supply	Input AC: 100- 240V Input DC: -48V	Input AC: 100- 240V Input DC: -48V
Power Consumption	70W (full) 45 (without 10GE)	110W (full) 85 (without 10GE)
MTBF	>80,000 hours	>80,000 hours
MEF Comply	Comply MEF 9,14	Comply MEF 9,14
EMC safety	FCC, CE, RoHS,	FCC, CE, RoHS

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Main Features

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Forwarding		■ Storage and forwarding
		■ 802.1Q based Vlan and support up to 4K Vlan ID
		■ Support QinQ, selective QinQ, Flexibe QinQ
L1,L2 Features	**VLAN Type**	■ Support Voice Vlan, Port based Vlan, MAC based Vlan, IP subnet Vlan, Protocol based Vlan, Private Vlan
		■ Support GVRP
	Spanning Tree	■ 802.1D STP, 802.1W RSTP, 802.1S MSTP
		■ Support Root guard, BPDU guard, BPDU forwarding, BPDU Tunnel
	Link Aggregation	■ Support LACP 802.3ad, max 128 groups trunk with max 8 ports for each trunk,
		■ Support source / destination MAC based load balance
	MAC Operation	■ Support MAC binding
		■ Support MAC filter
		■ Support black hole MAC
		■ Support MAC limit per port
	Broadcast storm control	■ Support Broadcast / Multicast / Unicast Storm Control
		■ Supports control and can set rate for broadcast
	Port	■ Support VCT & DDM
		■ Support UDLD, LLDP, LLDP-MED
		■ Support 1:1 and N:1 port mirror
		■ Jumbo Frame (9K)
		■ Loopback interface
		■ Port loop detection
		■ Bandwidth control: At least 64Kbps step
		■ Support HOL preventing first packet jam, semi-duplex backpressure, duplex IEEE802.3x
		■ GE combo ports could be compatible with FE SFP module
		■ Port Protection
L3 Features	■ IP Protocol (IP support both of Ipv4 and Ipv6)	
	■ Default Routing, Static Routing, Black hole route, VLSM and CIDR	
	■ RIPv1/V2	
	■ VRRP, VRRP v3	
	■ Support BFD	
	■ ARP guard, Local ARP proxy, Proxy ARP, ARP binding, Gratuitous ARP, ARP limit	
QOS Features		■ 8 queues per port
		■ Support QinQ, Selective QinQ, Flexible QinQ
		■ Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, Access Control List
		■ Supports SP, WRR, SWRR for scheduling
		■ Support flow shaping
		■ Port, MAC based authentication

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Security	IEEE 802.1x	■ Support account based on time length and traffic
		■ Support guest Vlan and auto Vlan
		■ Work with private client can manage P2P traffic
	AAA	■ RADIUS for Ipv4 and Ipv6
		■ TACACS+ for Ipv4
	ACL	■ Support 2K Access Control Lists(ACL) based on source/destination IP address, source/destination MAC address, IP type, TCP/UDP port number, IP precedence, time range, ToS.
		■ ACL on VLAN interface
		■ Flow redirect based on ACL
	ARP	■ Support ARP binding
		■ Support ARP limit
		■ Support ARP guard
		■ Support Anti ARP scanning
	Enhanced	■ Ip source guard support under controlled L3 forwarding block
		■ Prevent illegal multicast source and limited multicast
		■ Support DHCP Snooping, and DHCP Snooping option 82
Multicast		■ Support IGMP v1/v2/v3 snooping
		■ Support Multicast Vlan Register (MVR) based on port
		■ Support Multicast receive control
		■ Support illegal multicast source detect
		■ Support multicast policy configuration
IPv6		■ ICMPv6, NDP, SNMP over IPv6, HTTP over Ipv6, Ipv6 Ping/tracer, Ipv6 Telnet, Ipv6 RADIUS+, Ipv6 Syslog, IPv6 SNTP, IPv6 FTP/TFTP
		■ Support DHCPv6 Server, Relay, Snooping
		■ Support MLD Snooping
		■ Support IPv6 MVR
Management	Switch Management	■ CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
		■ RMON 1,2,3,9
		■ SSHv1,v2 & SSL support
		■ RJ45 Console
		■ Support Public & Private MIB interface
		■ Supports SNTP/NTP, Summer Saving Time
		■ Support Multiple sys-log servers
		■ Support OAM 802.3ah
		■ Support DDM(Digital Diagnostic Monitor)
		■ Support NMS software management
		■ Support MAX 24 unites cluster

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		■ Support IPv4 and IPv6 Security IP management
	Firmware & Configuration	■ Multiple firmware images/ configuration files
		■ Firmware upgrade via TFTP/FTP server
		■ Configuration file upload/download via TFTP/FTP server
	DHCP	■ Supports BOOTP, DHCP server/client for IP address assignment
		■ Support DHCP relay, DHCP relay option 82, DHCP Snooping, and DHCP Snooping option 82

■ Warranty

Limited lifetime warranty

■ Order Information

Product	Description
DCRS-5750-52F	10G IPv6 Routing Switch, 44* GE SFP and 4 Gigabit Combo（SFP/GT）ports and 2 slot, AC power supply
DCRS-5750-28F	10G IPv6 Routing Switch, 12* GE SFP and 12 Gigabit Combo（SFP/GT）ports and 2 slot, AC power supply
DCRS-5750-52F-DC	10G IPv6 Routing Switch, 44* GE SFP and 4 Gigabit Combo（SFP/GT）ports and 2 slot, AC+DC redundant power supply
DCRS-5750-28F-DC	10G IPv6 Routing Switch, 12* GE SFP and 12 Gigabit Combo（SFP/GT）ports and 2 slot, AC+DC redundant power supply
MRS-2XFP	DCRS-5750F series 2* 10G module(XFP interface) for DCRS-5750F series
MRS-2SFP+	DCRS-5750F series 2* 10G module(SFP+ interface) for DCRS-5750F series

■ Connect us

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